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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,744	03/31/2001	Tomoo Kosugi	1014-016	5963

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EXAMINER
LEON, EDWIN A

ART UNIT	PAPER NUMBER
2833	

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/823,744	Applicant(s) KOSUGI ET AL.	
	Examiner Edwin A. León	Art Unit 2833	

-- Th MAILING DATE of this communication appears on the cov r sh t with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Niigaki et al. (U.S. Patent No. 5,959,400). Niigaki et al. discloses a method for manufacturing a flat panel display comprising: providing a baseplate (10) and a faceplate (20); desorption processing the faceplate (20) in a vacuum; merging the baseplate (10) and the faceplate (20); and sealing the vacuum between the baseplate (10) and the faceplate (20). See Fig. 2 and Column 4, Lines 20-64; Column 5, Lines 25-31, and Column 7, Lines 20-25.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niigaki et al. (U.S. Patent No. 5,959,400). Niigaki et al. discloses the claimed invention except the use of a vacuum from 10-7 to 10-8 torr.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a vacuum from 10-7 to 10-8 torr, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617, F. 2d 272, 205 USPQ 215 (CCPA 1980).

5. Claims 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niigaki et al. (U.S. Patent No. 5,959,400) in view of Browning et al. (U.S. Patent No. 6,409,564). With regard to Claims 3-5, 9, 11-12, 14, and 16-20, Niigaki et al. discloses the claimed invention except for the desorption processing including scrubbing the faceplate before sealing the vacuum between the baseplate and the faceplate, the scrubbing the faceplate using plasma sputtering, the plasma sputtering using a low atomic weight gas, the desorption processing including pre-aging the faceplate, the desorption processing including pre-aging before merge of the baseplate and the faceplate, the pre-aging using irradiation with electrons from an electron gun.

Browning et al. discloses a panel display using desorption processing including scrubbing the faceplate (16) before sealing the vacuum between the baseplate (11) and the faceplate (16), the scrubbing the faceplate (16) using plasma sputtering, the plasma sputtering using a low atomic weight gas, the desorption processing including pre-aging the faceplate (16), the desorption processing including pre-aging before merge of the baseplate (11) and the faceplate (16), the pre-aging using irradiation with electrons from

an electron gun (13). See Fig. 2 and Column 4, Lines 23-49, Column 6, Lines 1-7 and Lines 49-63.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify method of Niigaki et al. by using the method of desorption processing including scrubbing the faceplate before sealing the vacuum between the baseplate and the faceplate, the scrubbing the faceplate using plasma sputtering, the plasma sputtering using a low atomic weight gas, the desorption processing including pre-aging the faceplate, the desorption processing including pre-aging before merge of the baseplate and the faceplate, the pre-aging using irradiation with electrons from an electron gun as taught in Browning et al. to improve the lifetime and the quality of the display by reducing the risk of experiencing a degraded performance as a result of contamination.

With regard to Claims 6-8, 10,13, 15, the combination of Niigaki et al. and Browning et al. disclose the claimed invention except the plasma sputtering using a faceplate voltage of -10 to -1000 mV, the plasma sputtering using a faceplate voltage of +10 to + 1000 mV, the plasma sputtering applying a faceplate voltage for about I to 60 minutes, the pre-aging the faceplate being performed from 120 to 300 minutes, the pre-aging using irradiation with electrons having a current density of 5 to 10 times higher than that of the faceplate during normal operation, or the pre-aging including application of a voltage of 6 to 9 kV between the baseplate and the faceplate.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the plasma sputtering using a faceplate voltage of

-10 to -1000 mV, the plasma sputtering using a faceplate voltage of +10 to + 1000 mV, the plasma sputtering applying a faceplate voltage for about I to 60 minutes, the pre-aging the faceplate being performed from 120 to 300 minutes, the pre-aging using irradiation with electrons having a current density of 5 to 10 times higher than that of the faceplate during normal operation, or the pre-aging including application of a voltage of 6 to 9 kV between the baseplate and the faceplate, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617, F. 2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pavliscak (U.S. Patent No. 4,320,418), Jeng et al. (U.S. Patent No. 5,772,485), Hasegawa et al. (U.S. Patent No. 6,409,566), Hasegawa et al. (U.S. Patent No. 5,912,531), Hasegawa et al. (U.S. Patent No. 6,313,571), and Haven et al. (U.S. Patent No. 6,380,670) disclose different methods of making flat panel displays.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (703) 308-6253. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Edwin A. León
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EAL
August 21, 2002

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